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> PATENT APPLICATION Attorney Docket No. 2002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

RODRIQUES, Klein A. et al.

SERIAL NO.:

10/072 402

GROUP ART UNIT:

1711

FILED:

8 February 2002

EXAMINER: ASINOVSKY, Olga

ENTITLED:

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SUPPLEMENT TO APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Dear Sir:

As a supplement to Appellants' Appeal Brief, which was transmitted to the United States Patent and Trademark Office on 5 July 2005, Appellants provide the following arguments in further to Appellants' Arguments concerning the rejection of claims 7-12, 21, 23 and 24 under 35

U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,960,465 to Arfaei et al. ("Arfaei"), in particular, Section VII(A)(3) and those remarks directed therein to the difference between polyethylene glycol and alcohol ethoxylate.

As indicated in Appellants' Brief, alcohol ethoxylate is so named because it is formed by the ethoxylation of a fatty acid as shown below –

$$H_{3}C$$
 H_{2}
 $H_{2}C$
 $H_{3}C$
 H_{2}
 $H_{3}C$
 $H_{4}C$
 $H_{2}C$
 $H_{2}C$
 $H_{2}C$
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 $H_{4}C$
 $H_{4}C$
 $H_{4}C$
 $H_{4}C$
 $H_{4}C$
 $H_{5}C$
 $H_{$

As seen above, the repeating unit is the CH₃-(CH₂)_n- portion of the polymer. In alcohol ethoxylates n typically varies from 5 to 22. This level of hydrophobicity gives alcohol ethoxylate its surfactant character. As n increases, its hydrophobicity increases making alcohol ethoxylate less water soluble. This is reflected in the hydrophilic-lipophilic balance, or HLB. The HLB scale goes from 0 for completely water insoluble materials to 20 for completely water soluble materials. C12 to C13 alcohol ethoxylate with 5 moles of ethylene oxide (Neodal 23-5 from Shell used in Example 10 of the present patent application) has an HLB of 10.7. C9 to C11 alcohol ethoxylate with 2.5 moles of ethylene oxide (Neodal 91-2.5 from Shell used in Example 9 of the present patent application) has an HLB of 8.5. Both alcohol ethoxylates would be considered water insoluble. In contrast, polyethylene glycol has an HLB of 20, exhibiting no hydrophobic characteristic. Unlike the alcohol ethoxylates included in the Examples of the present patent application, polyethylene glycol is completely water soluble and has no surfactant-like qualities. Accordingly, the Examiner's statement that the polyoxyethylene having hydroxyl end groups is the same as the alcohol ethoxylate of claim 24 is incorrect.

For these reasons, as well as those reasons previously provided in Appellants' 5 July 2005 Appeal Brief, the Examiner has failed to establish a *prima facie* case of anticipation under 35 U.S.C. § 102(b) of any of claims 7-12, 21, 23 and 24. Accordingly, the rejection of claims 7-12, 21, 23 and 24 as being anticipated by Arfaei should be reversed.

Respectfully submitted,

Dated:

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COMPANY

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